

## PHONE CONTACT RECORD - SERVICE ENGINEERING DEPARTMENT

SERVICE GROUP #: 05

DATE 86-02-27 V.I.N. See Below MDH NO. \_\_\_\_\_

VEH. DEL. DATE \_\_\_\_\_ MILES/KMS \_\_\_\_\_

NAME A. WEAVER REGION ALBERTADEALERS NAME NORTH WEST Motors PHONE NO. \_\_\_\_\_OWNERS NAME RED DEER PHONE NO. \_\_\_\_\_BRAKE BOOSTER VACUUM SUPPLY SYSTEM FREEZING

## DESCRIPTION OF PROBLEM/ACTION TAKEN

THE 11 BODY VEHICLES LISTED BELOW ALL  
SUFFERED FREEZE-UP OF THE BRAKE BOOSTER  
VACUUM SUPPLY HOSE. THIS RESULTED IN  
COMPLETE LOSS OF BRAKING ASSIST.

RED DEER AUTO RENTALS, LETS TO RED DEER HOSPITAL

<u>VIN</u>	<u>MDH</u>	<u>MILEAGE</u>
<u>1B3RG26PXF537190</u>	<u>10-05-16</u>	<u>39570</u>
<u>1B3RG26PXF584039</u>	<u>01-14-10</u>	<u>25292</u>
<u>1B3RG26P6FX584040</u>	<u>01-14-07</u>	<u>27185</u>

PRIVATELY OWNED VEHICLES

<u>1C3BF66P3FX533728</u>	<u>—</u>	<u>25620</u>
<u>1B3BG26P6FX629755</u>	<u>—</u>	<u>15613</u>

THE FREEZE-UP CONDITION ON ALL THE ABOVE  
VEHICLES HAS BEEN ELIMINATED BY RELOCATING THE  
BOOSTER VACUUM SOURCE TO THE INTAKE MANIFOLD.

PROBLEM REGISTERED WITH: L. STILESCOPIES TO: E. DURANCE.

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# ENGINEERING ANALYSIS CLOSING REPORT

SUBJECT: Alleged Loss of Power Brake Assist in Low Temperature Zones in 1987 Rough 1987 Chrysler Corporation Vehicles Equipped With 5. Liter

NO. 488- Date Recd: 01/87 Date Closed:

BASIS: This matter originated as an ODI Preliminary Location. PEBT-0131 on January 6, 1987.

THE ALLEGED DEFECT: The alleged defect addressed in this analysis is the loss of power brake assist due to brake booster vacuum hose port in the base of the carburetor becoming blocked with frozen moisture after extended periods of highway driving in low ambient temperatures.

DESCRIPTION OF THE COMPONENT OR VEHICLE SYSTEM: The subject vehicles are equipped with 8-cylinder engines of 5.2 liter displacement.

## CORRESPONDENCE:

NHTSA to Mfg.	Mfg. to Mf.	Mf. to NHTSA
Mfg. NHTSA	Supplement	
01/1/87	03-16-87	None
05/05/87	05/13/87	None
01/1/87	01/02/87	

## PROBLEM EXPERIENCE:

	EA OPENED		EA CLOSED	
	ODI	MFG	ODI	MFG
Reports	0	3	0	3
Owners	0	3	0	3
Field	0	0	0	1
Lawuits	0	0	0	0
Property Damage	0	0	0	0
Accidents	0	0	0	0
Injury/Accident	0	0	0	0
Fatality Accident	0	0	0	0
Fatalities	0	0	0	0
Unknown Accidents	0	0	0	0
Canadian Reports	0	8	0	20

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CHICL POPUL 10% 174,961 vehi is.

Vehi le Sales by Model Model Year Engine

Model	Engine	1984	1985	1986	1987
Cars:					
Ply Gran Fury	P	7532	11365	9634	7347
	4	3240	3293	1680	1748
	S	3744	3844	3477	1265
Dodge Diplomat	P	11832	24331	16581	13011
	4	4788	4837	7682	2653
	S	5543	9997	8690	4958
Chrys 5th Ave.	P	79441	109971	104744	70537
Trucks:					
Ramcharger		20051	29643	13222	17833
B-Vans/Diagons	T	69592	70818	64230	69582
	U		233	61	304
D-Pick-ups/Cabs	T	66301	91470	67270	61137
	U	---	457	55	226

\* Engine Codes are as follows:

Car: P=standard 2bb1, heavy duty 2bb1, S=1bb1

Truck: T= 2bb1 U= 1bb1

WARRANTY CLAIMS: Chrysler's March 2, 1987 response stated "Chrysler's warranty compilation system does not assign description categories or codes based on symptoms such as described in your statement of alleged defect [shall refer to the alleged loss, failure, malfunction, or inadequate performance of the brake system, brake power assist, and alleged "occurrences" of hard brake pedal]." However, a compilation of warranty claim data was provided by Chrysler which might pertain to the intent of your [ODI] inquiry. Analysis of this data did not indicate the presence of a safety defect trend.

RECALLS: Chrysler has issued no recalls relating to the alleged defect in the U.S. market.

In October 1986, Chrysler recalled 67,602 1984 through 1987 Canadian market vehicles equipped with the 5.2L engine for intermittent loss of power brake assist on a second application of the brake pedal. The defect was a result of the brake booster vacuum hose port in the base of the carburetor being blocked with frozen moisture after an extended

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of highway driving in low ambient temperatures. To prevent this defect from occurring, the vacuum source of the brake booster was relocated from the base of the carburetor to the intake manifold.

Chrysler stated in its response dated December 2, 1987, "Chrysler has not considered conducting a recall of any nature for the subject condition on U.S. vehicles. It is our evaluation that no such action is necessary.

SERVICE BULLETINS: On November 16, 1987, Chrysler issued an Advanced Service Information Letter to all Chrysler Zone Service Offices. This letter provides an explanation of Chrysler's Canadian power brake assist recall and the necessary corrective actions to be taken should a U.S. vehicle exhibit similar conditions.

DESIGN, MATERIAL, AND/OR PRODUCTION MODIFICATIONS: Chrysler relocated the brake booster vacuum source from the carburetor to the intake manifold on S.2L equipped vehicles during 1987 model year production -- early in the model year on the subject truck models and late in the model year on cars. This modification is the same as done on the recalled Canadian market vehicles.

TESTING: N/A

ADDITIONAL INFORMATION: Chrysler contacted each of the consumers which alleged a loss of power brake assist while driving in extremely cold weather and arranged for vacuum source relocation service on each of their respective vehicles.

WARNING SYMPTOMS: There appears to be no warning symptoms immediately prior to an alleged defect occurrence.

CONTRIBUTING FACTORS: It appears that the alleged defect occurs only during extended periods of highway driving in extremely cold temperatures. The four reports provided by Chrysler all occurred in what would normally be considered extremely cold winter temperature states. The states were Alaska, Wisconsin, Montana, and Minnesota.

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URE MODES: Loss of power brake assist after initial brake pedal application as a result of the brake booster vacuum hose port in the base of the carburetor being blocked with frozen moisture after an extended period of highway driving at low ambient temperatures.

MANUFACTURERS EVALUATION OF THE ALLEGED DEFECT: Chrysler's letter of March 2, 1987, describes its evaluation of the alleged defect. "We concluded that potential occurrences of the condition in the U.S. market were isolated, if any, and did not represent an unreasonable risk to motor vehicle safety." It maintains that the differences in problem reporting, weather, and emission systems between U.S. and Canadian market vehicles is significant enough not to warrant a recall of U.S. market vehicles.

REASON FOR CLOSING: Although the alleged defect may occur on subject vehicles operated in extremely cold climates, the nature and scope of the complaints does not indicate that a safety defect trend is present. The reports, provided by Chrysler, of vacuum line freezing and the resultant loss of power brake assist appear to be isolated occurrences. No defect trend has been identified.

*W. J. R. R.*  
Safety Defects Engineer

*2/24/88*  
Date

I concur:

*Chas M. M. R.*  
Chief, Engineering and Test Branch

*2/25/88*  
Date

*T. J. Williams*  
Chief, Defect Evaluation Division

*2/27/88*  
Date

*W. J. R. R.*  
Director, Office of Defects Investigation

*3-1-88*  
Date

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